Appendix H Reference Environmental Impact Reports

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Table H-1

1

Description of Reference Environmental Impact Reports Used in the Analysis of Impacts

Project Features Addressed

Los Vaqueros Reservoir Expansion Project Draft Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) (U.S. Bureau of Reclamation, Contra Costa Water District, and Western Area Power Administration 2009)

- The Los Vaqueros Reservoir Expansion Project would develop water supplies for environmental water management, increase water supply, and improve the quality of water deliveries to municipal and industrial customers in the San Francisco Bay Area.
- The Los Vaqueros Reservoir would be expanded from the existing storage capacity of 100 thousand acre-feet (TAF) to 275 TAF by raising the existing dam.
- A new 170-cubic foot per second (cfs) Delta Intake and Pump Station would be constructed along Old River and to move water from the Delta to the Los Vaqueros Reservoir.
- A new Delta-Transfer Pipeline with a capacity of up to 350 cfs and would be installed generally parallel to the existing Old River Pipeline between the intake facilities and the water Transfer Facility.
- The existing Transfer Facility would be expanded to accommodate movement of the higher flow volumes into and out of the expanded reservoir, and into the Transfer-Bethany Pipeline. The expanded Transfer Facility would have a total pumping capacity of 670 cfs and a storage capacity of 12 million gallons.
- The 470-cfs pipeline and appurtenant facilities extending between the existing Transfer Facility and Bethany Reservoir would be constructed linking the Los Vaqueros Reservoir system to South Bay water agencies via Bethany Reservoir.
- New power facilities would be constructed to serve the new intake and other expanded Los Vaqueros Reservoir system facilities.

Elements of the Project in Common with the Proposed Project

Elements of the Los Vaqueros Reservoir Expansion Project are similar to several types of projects encouraged by the Proposed Project, including:

- Surface water storage facilities (construction and operation)
- Reservoir (Central Valley Project [CVP]/State Water Project [SWP])
 operation
- Water intakes (construction and operation)
- Pumping plants (construction and operation)
- Pipelines (construction and maintenance)

Specifically, the referenced project involves the expansion of surface water storage and shares many elements with the surface storage reservoirs under consideration by the California Department of Water Resources (DWR) Surface Water Storage Investigation, encouraged by the Proposed Project. In addition, many of the individual elements, such as conveyance pipeline construction, intake facilities construction and operation, pumping stations have relevance to other projects encouraged by the proposed Delta Plan to improve water supply reliability.

Proposed Lower Yuba River Accord Final EIR/EIS (California Department of Water Resources, Yuba County Water Agency, and U.S. Bureau of Reclamation 2007)

- The proposed Lower Yuba River Accord includes the following three separate but interrelated agreements that would protect and enhance fisheries resources in the lower Yuba River, increase local supply reliability, provide increased operational flexibility for protection of Delta fisheries resources through the Environmental Water Account (EWA) Program, and include the provision of supplemental dry-year water supplies to State and federal water contractors. These agreements are:
 - Principles of Agreement for Proposed Lower Yuba River Fisheries Agreement (Fisheries Agreement): The Fisheries Agreement contains proposed new minimum instream flows for the lower Yuba River that are intended to maintain or increase protection of the river's fisheries resources. Compared to the interim flow requirements of the State Water Resource Control Board (SWRCB) Revised Water Right Decision 1644, the Fisheries Agreement would establish higher minimum instream flows during most months of most water years.
 - Principles of Agreement for Proposed Conjunctive Use Agreements (Conjunctive Use Agreements): The Conjunctive Use Agreements would be implemented by the Yuba County Water Agency (YCWA) to help provide higher minimum instream flows under the Fisheries Agreement. Implementation of the Conjunctive Use Agreements would establish a comprehensive conjunctive use program that would integrate the surface water and groundwater supplies of the local irrigation districts and mutual water companies that YCWA serves in Yuba County. Integration of surface water and groundwater would allow YCWA to increase the efficiency of its water management. The project would result in an increased groundwater pumping of 4 TAF up to 13 TAF.
 - Principles of Agreement for Proposed Long-term Transfer Agreement (Water Purchase Agreement): Under the Water Purchase Agreement, U.S. Bureau of Reclamation (Reclamation) and California Department of Water Resources (DWR) would enter into an agreement with YCWA to purchase water for use in the (EWA) Program or an equivalent program as long as operational and hydrological conditions allow. The EWA Program would take delivery of 40 TAF water in every year; the CVP/SWP would receive 89 TAF of additional water in the drier years.

Elements of the Project in Common with the Proposed Project

The Lower Yuba River Accord includes several project elements that are in common with other water supply reliability projection encouraged by the Proposed Project. Specifically, the Lower Yuba River Accord EIR/EIS evaluates the effects of water transfers, conjunctive use and integration of surface and groundwater supplies, and the effects of modified stream flows to protect and improve fish habitat. The EIR/EIS is also relevant because it provides insight into the effects of water transfers and tributary operations management on water quality and habitat conditions in the Delta.

Calaveras Dam Replacement Project Final EIR (San Francisco Public Utilities Commission 2011)

- Calaveras Dam is located on Calaveras Creek in the Diablo Mountain Range in Alameda County, California, approximately 12 miles south of the City of Pleasanton and 7.5 miles east of the City of Fremont.
- The Calaveras Dam Replacement Project would re-establish water delivery reliability; restore water supply and reservoir capacity to its pre-2001 level; improve seismic reliability through construction of a replacement dam and maintain high water quality, re-creating a deeper pool that would keep water temperatures cooler to limit algal growth in the reservoir.
- The new dam would be constructed to store 96,280 acre-feet of water from the Alameda Creek watershed.
- A new intake/outlet shaft tower would be constructed, consisting of a 20-foot-diameter by 163-foot-deep vertical shaft and three new tunnels. This inlet/outlet structure would convey water to and from the reservoir through a 72-inch-diameter steel-lined tunnel and a 78-inch-diameter pipeline downstream.
- A new 1,550-foot-long ungated spillway would be constructed with a concrete-lined channel.
- A bypass tunnel would be constructed through the Alameda Creek Diversion Dam to improve habitat conditions in Alameda Creek.

Elements of the Project in Common with the Proposed Project

The Calaveras Dam Replacement Project EIR is relevant to the analysis of water supply reliability projects encouraged by the Proposed Project because it addresses some of the impacts reasonably expected to result from other surface water storage projects. While different in design and function, the impacts associated with project elements, such as intake structures, bypass tunnels, and spillways would likely have similar types of impacts. In addition to the direct relevance to surface water storage projects, the Calaveras Dam Replacement Project contains individual elements that would be in common with other water supply reliability projects encouraged by the Proposed Project.

Elements of the project in common with the Proposed Project include:

- Surface water storage facilities (construction and operation)
- Water intakes (construction and operation)
- Pipelines and tunnels (construction and operation)

Huntington Beach Seawater Desalination Project Draft Recirculated EIR (City of Huntington Beach 2005)

- The Huntington Beach Seawater Desalination Project consists of construction and operation of a 50-million-gallon-per-day (mgd) seawater desalination facility that would provide supplemental and alternative sources of potable water to Orange County.
- The project would include a seawater intake system, pretreatment facilities, a seawater desalination facility using reverse osmosis technology, post-treatment facilities, potable water storage, on-site booster pump stations, and on-site potable water transmission pipelines.
- A 72-inch-diameter pipeline would be constructed between the desalination facility and the existing Huntington Beach Generating Station ocean intake/outfall lines.
- Approximately 10 miles of offsite water transmission pipelines would be installed in road rights-of-way or public utility easements to distribute potable water from the desalination facility to two new off-site underground booster pump stations.
- The two offsite underground booster pump stations would be constructed to convey potable water to existing regional transmission and local distribution systems.

The Proposed Project encourages water supply reliability actions that might include the construction and operation of seawater desalination plants. The environmental analysis of contained in the Huntington Beach Seawater Desalination Project EIR is relevant because it discloses many of the same types of impacts that would be expected from desalinations projects encouraged by the Proposed Project. It also provides additional insight into the more generic types of impacts that could result facility construction, conveyance pipeline construction, and pump stations.

Elements of the project in common with the Proposed Project include:

- Desalination plants (construction and operation)
- Pipelines (construction and maintenance)
- Pumping plants (construction and operation)

City of Carlsbad, Precise Development Plan and Desalination Plant Project EIR (City of Carlsbad 2005)

- The proposed Carlsbad Desalination Plant Project would improve water quality for the City of Carlsbad and the surrounding communities, would provide supplemental and alternative sources of potable water to the City of Carlsbad and the San Diego region, and complement local and regional water conservation, and water recycling programs.
- The desalination project would include pretreatment facilities, a 50-mgd seawater desalination facility using reverse osmosis technology, post-treatment facilities. A 50 mgd seawater desalination facility would be constructed.
- An existing intake structure consisting of a pump station and a wet well tied-in to the
 power plant discharge channel would pump water through a 72-inch-diameter pipeline to
 be constructed from the power plant to the desalination plant.
- Up to 16 miles of offsite water transmission pipelines would be installed in road rights-ofway to distribute potable water to the City of Carlsbad and various local water districts.

Western Municipal Water District Riverside-Corona Feeder Project Supplemental EIR/EIS (Western Municipal Water District and U.S. Bureau of Reclamation 2011)

- The Western Municipal Water District (WMWD) Riverside-Corona Feeder (RCF)
 Project would improve the reliability of WMWD's water supply through the managed
 storage and distribution of excess imported water and reduce possible water
 shortages during dry years through reduced dependence on imported water during
 dry-year conditions.
- The WMWD project includes construction of a 28-mile-long large capacity water pipeline that would range up to 78 inches in diameter. The RCF would be designed to deliver a maximum of 40,000 acre-feet per year of water.
- The RCF includes three pipeline connections. These connections would allow WMWD to convey water throughout its service area.
- Up to 20 new and existing groundwater wells may be installed within the San Bernardino Groundwater Basin in San Bernardino County. Each of these wells would be capable of extracting 2,220 gallons per minute of groundwater.
- Existing recharge basins would be used to spread imported water in the San Bernardino Groundwater Basin.
- Other components of the project may include groundwater treatment facilities and water storage and pumping facilities. The RFC would also provide access to groundwater from the Chino Groundwater Basin in San Bernardino/Riverside counties.

Elements of the Project in Common with the Proposed Project

Like the EIR for the Huntington Beach Seawater Desalination Project described above, the EIR for the Carlsbad Desalination Plant Project provides additional insight into the types of impacts that could from an ocean desalination project, as well as project elements (e.g., conveyance) that would be integral components of other water supply reliability projects encouraged by the Proposed Project.

Elements of the project in common with the Proposed Project include:

- Desalination plants (construction and operation)
- Pipelines (construction and maintenance)
- Pumping plants (construction and operation)

The RCF is relevant to the evaluation of the Proposed Project because it represents the types of actions that local and regional entities might take to improve water reliability. The project EIR specifically addresses the likely impacts that could result from the construction and management of groundwater storage and use facilities. It also provides a good example of the impacts that could arise for projects that include large conveyance components, water treatment plants, and pumping plants.

Elements of the project in common with the Proposed Project include:

- Groundwater storage facilities (operation)
- Pumping plants (construction and operation)
- Pipelines (construction and operation)
- Water treatment plants (construction and operation)

Davis-Woodland Water Supply Project Draft EIR (City of Davis et al. 2007)

- The project, located just north of the Delta, would provide a reliable water supply to
 meet existing and future needs, improve water quality for drinking supply purposes, and
 improve treated wastewater effluent quality discharged by in the City of Davis, City of
 Woodland, and UC Davis through 2040.
- Surface water supplies would be acquired through new water rights for unappropriated
 water from the Sacramento River and water rights transfers from senior water rights
 holders. Local groundwater would continue to be used as a component of the water
 system to help meet daily and seasonal peak water demands.
- The project would include diversion and intake facilities to divert surface water from the Sacramento River. Untreated water diverted from the Sacramento River would be conveyed through a new 60-inch-diameter water transmission pipeline or through a new parallel 42-inch-diameter water transmission pipelines to a new regional water treatment plant. The water treatment plant would have an ultimate capacity of up to 106 mgd.
- Local water transmission facilities would include new transmission pipelines within the
 cities of Davis and Woodland; a connecting pipeline between Davis and UC Davis; and
 pump stations, water storage facilities, vaults, and other appurtenant facilities to operate
 and maintain the water supply systems.

Elements of the Project in Common with the Proposed Project

The Davis-Woodland Water Supply Project EIR is relevant to the environmental evaluation of the Proposed Project because it illustrates the types of impacts that might occur as a result of a water supply projects in and near the Delta. This document provides insight into the local impacts associated with the construction and operation of a water intake in the Sacramento River, as well as the influence of operations on the Delta. The project also includes components that likely would part of other water supply reliability projects encouraged by the Delta, including the effects of pipeline construction on agricultural land and wildlife use.

Elements of the project in common with the Proposed Project include:

- Water treatment plants (construction and operation)
- Pipelines (construction and maintenance)
- Water intakes (construction and operation)
- Pumping plants (construction and operation)
- Water transfers

North Delta Flood Control and Ecosystem Restoration Project Final EIR (California Department of Water Resources 2010)

- DWR is pursuing the development of the North Delta Flood Control and Ecosystem Restoration Project to achieve flood control and ecosystem restoration benefits in the North Delta, as well as additional benefits such as recreation improvements where practicable.
- Portions of the levee system may be degraded to allow controlled flow across McCormack-Williamson Tract to provide flood control.
- · Levee modification to mitigate hydraulic impacts.
- Channel dredging to increase flood conveyance capacity.
- An off-channel detention basin on Staten Island.
- Ecosystem restoration would occur where floodplain forests and marshes would be developed at McCormack-Williamson Tract and the Grizzly Slough property.
- Creating a setback levee on Staten Island to expand the floodway conveyance.
- Opening up the southern portion of McCormack-Williamson Tract to boating; improving Delta Meadows property; providing access and interpretive kiosks for wildlife viewing; and providing restroom, circulation, parking, and signage infrastructure to support such uses.

The North Delta Flood Control and Ecosystem Restoration Project EIR is particularly relevant to the environmental evaluation of the Proposed Project because addresses the impacts of a variety of project types that could occur in the Delta to support ecosystem restoration, flood control, and recreation. The project has direct relevance to the activities encouraged by the Proposed Project that enhance floodplain and riparian habitat in the Yolo Bypass and lower San Joaquin River, and flood risk reduction projects throughout the Delta.

Elements of the project in common with the Proposed Project include:

- Floodplain restoration (construction and maintenance)
- Piparian restoration (construction and maintenance)
- Levee modification (levee removal/degradation)
- Setback levees (construction and maintenance)
- Floodplain expansion (construction and maintenance)
- Dredging

Elements of the Project in Common with the Proposed Project

The Proposed Project specifically encourages ecosystem restoration

(including tidal marsh restoration) in Suisun Marsh and the Cache Slough

Complex. The EIR for the Suisun Habitat Management, Preservation, and Restoration Plan is relevant because it directly evaluates the impacts of tidal

generally apply to restoration actions encouraged in the Cache Slough

marsh restoration in Suisun Marsh. These same types of impacts also would

Project Features Addressed

Suisun Marsh Habitat Management, Preservation, and Restoration Plan Draft EIS/EIR (U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, and California Department of Fish and Game 2010)

- The Suisun Habitat Management, Preservation, and Restoration Plan (Plan) is intended to balance the benefits of tidal wetland restoration with other habitat uses in the Suisun Marsh including salt marsh harvest mouse habitat, managed wetlands, public use, and upland habitat.
- The Plan is a designed to address the various conflicts regarding use of Suisun Marsh resources over 30 years, with the focus on achieving an acceptable multi-stakeholder approach to the restoration of tidal wetlands and the management of managed wetlands and their functions. The total amount of existing managed wetlands and uplands that could be affected by tidal restoration and managed wetland activities is 52,112 acres.
- Approximately 5,000 to 7,000 acres tidal restoration and 44,000 to 46,000 acres of managed wetlands subject is included in the Plan.

Complex. Elements of the project in common with the Proposed Project include:

Wetland restoration (construction and maintenance)

Grasslands Bypass Project Final EIS/EIR (U.S. Bureau of Reclamation and San Luis & Delta-Mendota Water Authority 2009)

- The project proposes the continuation of the Grassland Bypass Project, located along the west side of the San Joaquin Valley, for the period 2010–2019 under the terms and conditions of the proposed "2010 Use Agreement for Use of the San Luis Drain."
- The project has provided the institutional framework to manage and control agricultural drainage in the Grassland Drainage Area (GDA), reducing the load of selenium discharged from the GDA, and eliminating contamination in the Grasslands wetland water supply channels.
- The project would continue to consolidate subsurface drainflows on a regional basis and utilize a portion of the Federal San Luis Drain to convey drainflows around wetland habitat areas after the 2001 Use Agreement expires.
- The project would continue to collect drainwater from the 97,400-acre GDA through 93 miles of drain channels and convey it to the San Joaquin River at a location 3 miles upstream of its confluence with the Merced River.
- Approximately 1,100 acres adjacent to the GDA could be annexed.

The treatment of agricultural runoff is one of the types of water quality improvement projects encouraged by the Proposed Project. The Grassland Bypass Project EIS is relevant because it evaluates that impacts associated with the management of agricultural runoff for the purpose of improving water quality. While the characteristics of the project are unique to its location and the water quality issues (e.g., selenium), it does provide insight into the impacts that could occur as a result of drainage management in agricultural areas.

Elements of the project in common with the Proposed Project include:

Agricultural runoff treatment

Elements of the Project in Common with the Proposed Project

Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region Final Policy EIS and Programmatic EIR (U.S. Army Corps of Engineers et al. 1998)

- The Long-Term Management Strategy (LTMS) for San Francisco Bay Area dredged
 material was established to create a partnership to find acceptable disposal alternatives
 and to address the various regional concerns regarding dredging and disposal of
 dredged material over the next 50 years.
- The LTMS identifies the distribution of dredged material disposal in a combination of three potential placement environments at approximately 20% in-Bay disposal, approximately 40% ocean disposal, and approximately 40% upland/wetland reuse.

The Proposed Project encourages projects that reduce flood risk, including the use of dredging as a means of maintaining for improving channel capacity. The Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region Final Policy EIS and Programmatic EIR is relevant because it addresses impacts associated with dredging in the Delta, including the environmental effects associated with the placement dredged materials.

Elements of the project in common with the Proposed Project include:

Dredging

Sacramento River Deep Water Ship Channel Project Draft Supplemental EIS/EIR (U.S. Army As described above for the Long-Term Management Strategy for the Corps of Engineers and Port of West Sacramento 2011)

As described above for the Long-Term Management Strategy for the Placement of Dredged Material, the Sacramento River Deep Water S

- USACE and Port of Sacramento would reinitiate previously approved dredging activities
 to deepen the Sacramento River Deep Water Ship Channel to -35 feet mean lower low
 water and selectively widen portions of the channel.
- The total volume of dredged material is estimated to be approximately 8.1 million cubic yards to approximately 10 million cubic yards.
- Dredged material would be placed at 10 upland sites adjacent to the ship channel, which would either permanently accommodate or temporarily stockpile the material for later beneficial reuse.

As described above for the Long-Term Management Strategy for the Placement of Dredged Material, the Sacramento River Deep Water Ship Channel Project Draft Supplemental EIS/EIR evaluates the environmental effects of both in-channel dredging activities and the placement of dredged materials associated with the Sacramento River Deep Water Ship Channel. While the purpose of this dredging is to maintain the channel to accommodate ship traffic, the effects are expected to be similar to flood risk reduction projects encouraged by the Proposed Project that use dredging as a means to reduce flood risk.

Elements of the project in common with the Proposed Project include:

Dredging

Bidwell–Sacramento River State Park Habitat Restoration and Outdoor Recreation Facilities Development Project Final EIR (The Nature Conservancy and California Department of Parks and Recreation 2008)

- The Project would create an over 200-acre state park along the Sacramento River west of Chico.
- Natural areas in the park managed to restore and maintain native habitat types including: cottonwood riparian forest (24.4 acres), valley oak forest (34.5 acres), mixed riparian forest (21.1 acres), valley oak riparian forest (55.0 acres), oak savanna (6.5 acres), and grassland buffer (12.2 acres).
- Approximately 6,500 feet of an Americans with Disabilities Act (ADA)-compliant trail
 would be constructed to provide access from the parking areas to picnic sites.
- Approximately 25 acres of walnut orchard would be removed and restored to native riparian habitat.
- Seven acres of existing riparian habitat would be enhanced through plantings of native species and removal of invasive species.
- A 2-acre "play meadow" would be constructed and planted with irrigated native grasses and sedges.
- Seven family picnic sites, four of which would be ADA compliant, and two ADAcompliant group picnic sites would be created and each of the sites would include a concrete pad, picnic tables, and barbecues.
- A two-unit restroom with associated flush utilities and drinking fountain would be constructed and connected to a new potable well and septic waste water system or vault toilet.
- A gravel parking area designed for 50 cars and a 1.3-acre overflow parking area would be constructed.
- Approximately 2,800 feet of boundary fencing, signage, interpretive panels, and recycle and trash containers would be installed.

Elements of the Project in Common with the Proposed Project

The Bidwell–Sacramento River State Park Project is relevant to the analysis of the Proposed Project because it has elements similar to the types of projects encouraged by the Proposed Project and it would be implemented in a setting that would be similar to projects in the Delta. The referenced project involves the restoration of riparian habitat, similar to the restoration encouraged by the Proposed Project, including the conversion of agricultural land. Moreover, the referenced project concerns the construction and maintenance of visitor-serving state park facilities similar to those that would be part of new State parks encouraged by the Proposed Project.

Elements of the project in common with the Proposed Project include:

- riparian restoration (construction and maintenance)
- invasive species management
- parks, trails, and facilities (construction, maintenance, recreation facilities, and use)

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San Luis Rey River Park Master Plan Draft Program EIR (San Diego County of Parks and Recreation 2008)

- The San Luis Rey River Park, encompassing approximately 1,600 acres, would be
 developed along an 8.5-mile stretch of the San Luis Rey River between Interstate 15
 and Oceanside in northern San Diego County. The proposed park aims to balance
 recreation and preservation/restoration/interpretation of the San Luis Rey River's
 sensitive resources to serve the Fallbrook and Bonsall Community Planning Areas.
- The park would be composed of three fundamental components: active and passive recreational amenities, a network of multi-use trails (including potential trail bridges) that stitch the park together internally while linking it to surrounding communities, and an open space Preserve.
- Approximately 40 acres of active recreation areas, community gathering spaces; interpretative gardens; and park maintenance facilities including offices, maintenance yard, and Live-on Volunteer Sites. Tier A sites would include access to the circulation system, paved parking areas, and landscaping.
- Passive activities such as picnicking, birding, and resource interpretation.
- Unpaved parking/staging areas and restroom facilities.
- Multi-use trail to accommodate hiking, biking, and equestrian activities trails, with several small hiking-only trails through more sensitive habitat.

Elements of the Project in Common with the Proposed Project

The San Luis Rey River Park Master Plan Draft Programmatic EIR is relevant to the evaluation of the Proposed Project because it assesses the impacts associated with the construction and use of the types of parks and recreational facilities encouraged by the Proposed Project, particularly the development of recreational facilities and appurtenant structures (e.g., parking lots).

Elements of the project in common with the Proposed Project include:

 parks, trails, and facilities (construction, maintenance, recreation facilities, and use)